

2018 | AIR CONDITIONERS

AIR CONDITIONERS

2 0 1 8

LG HVAC SOLUTION



LG Electronics







<http://www.lg.com>
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EUROPE SALES INFRASTRUCTURE

-  Europe B2B Regional Head Office
-  National Sales Office
-  Air Conditioning Academy
-  European Distribution Center
-  Europe Energy Lab
-  Production Site



GLOBAL PRODUCTION SITE



LG Energy Labs in Europe

LG Energy Labs are driven to fulfill the commitment of meeting all the requirements regarding energy efficiency and environmental demands. Each LG Energy Lab is an innovative site dedicated to provide essential commercial and residential products in heating, ventilation and the latest energy efficient air conditioning solutions. Additionally, as a showcase, the LG Energy Lab is equipped with complete monitoring and control systems. The performance of all products are tracked and analyzed by a team of Research and Development engineers based in France, Finland and Korea, ensuring maximum efficiency and reliability during the complete products' lifecycle.



European Air Conditioning Distribution Center

LG's European Air Conditioning Distribution Center is centralised in Oosterhout, the Netherlands. Supplying and delivering products to 15 countries in Europe, this Distribution hub has contributed to quick and seamless delivery, direct shipping for smaller orders and bespoke delivery to air conditioners. The hub tries to manage inventory efficiency by complying with the LG EU's established inventory pool.

TOTAL HVAC SOLUTION PROVIDER

Ever since manufacturing Korea's first exclusively home designed air conditioner in 1968, LG has remained as a pioneer and an epitome of air conditioning innovation. LG has been the world's best selling manufacturer of residential air conditioning solutions. In 2008, LG accomplished the target sales for more than 100 million air conditioners. Encouraged by its success rate and technological leadership in the residential air conditioning sector, LG has expanded its wings into system air conditioning as well.

LG has established itself as an inimitable / exemplary HVAC and energy solution provider, investing in new technologies and adding chillers, VRF systems, and building management systems (BMS) to its comprehensive product portfolio. Including a wide range of innovative solutions, LG delivers unparalleled customer service.

LG produces expert air conditioning professionals at its academic centers, of which there are nearly 80 worldwide. These academic

centers provide workshops and training programs that offer excellent hands-on experience. Additionally, LG provides advanced and highly sophisticated tools for HVAC system engineers and installers, including its time saving LG Air Conditioner Technical Solution (LATS) software. LG also operates several state-of-the-art R&D facilities all across the planet.

One such facility is the Energy Lab, a purpose-built R&D and testing center in northern France. Helping to keep the company ahead of the competition, the scientists and engineers at the Energy Lab study the ramifications of different environmental conditions on LG's products. This indepth research and analysis enables LG to tune its solutions to the specific environmental demands of each individual market. Combining the best technologies with the intellectual ideas, LG's high quality products have now earned the favoritism of customers in over 100 countries.

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Dual Inverter Compressor

• What is the Dual Inverter Compressor?

A compressor is the heart of an air conditioner, and monitoring whether it works properly, effectively, or noisily that can cause stress as well as cost more money. LG's Dual Inverter Compressor provides an effective solution, resulting in an air conditioner that cools faster, lasts longer, and operates quieter than conventional models.



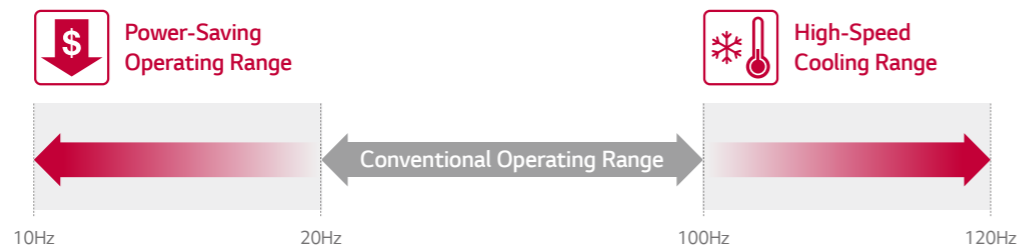
• How it Works

Varied-Speed Dual Rotary

A compressor motor with a wider rotational frequency that is energy efficient and has a higher volumetric quick cooling capacity than any conventional compressors.



Dual Inverter
COMPRESSOR



• Product Reliability Improvement

The Dual Inverter Compressor reduces the vibration and with it the sound pressure levels. The reduction in vibration reduces the possibility of fractures occurring in the the surrounding pipework.



R32 Refrigerant

• Pain Point

Due to accelerated global warming and the destruction of the ozone layer, various international conventions and meetings are held to enhance restrictions to the use of refrigerant or enforce the use of eco-friendly refrigerants. In order to reduce environmental destruction, refrigerant R32 is internationally acclaimed for being Eco-friendly. It has the unprecedented feature as a low volume refrigerant that is as efficient as any conventional refrigerant; thus qualifying as a green refrigerant.



• How it Works

Utilising a small amount of the R32 refrigerant also qualifies it to be a highly green efficient system.

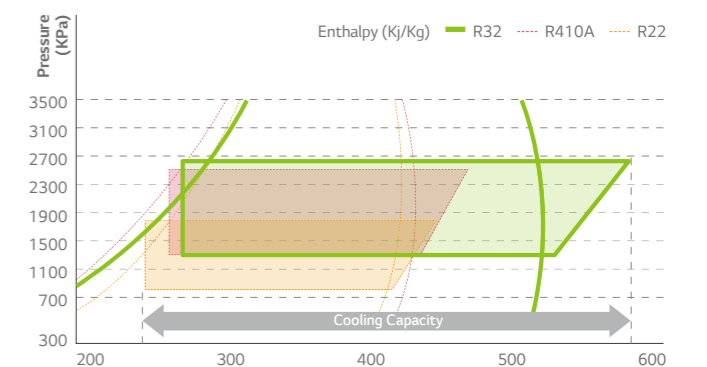
Alleviate Global Warming & Ozone Layer Destruction

R32 efficiently works even in small volume compared to existing R410A refrigerant, which decreases potential hazard of global warming.

	R410A	R32
Composition	Blend of R32 50% + R125 50%	Pure R32 (No blend)
GWP (Global Warming Potential)	2087.5	675

High Compressibility

R32's high compressibility rate gives more powerful cooling performance and efficiency compared to existing refrigerant R22 and R410A.



• Benefit

Eco-friendly Refrigerants that can prevent environmental pollution.

High-Efficiency & High-Performance Refrigerant

Reduce refrigerant charge by 15% R410A Preparation for an increase in efficiency for both heating and cooling. R410A Preparation for easy install. (R410A blended refrigerant, R32 single refrigerant)

SMART



Embedded Wi-Fi

Control your air conditioners by using Android or iOS based smartphones. This advanced technology provides you many benefits.

• LG Smart ThinQ



Download the 'LG SmartThinQ' app from the Google Downloads or the Appstore.



LG Smart ThinQ

• How it Works

Embedded Wi-Fi modem

Enable "LG Smart ThinQ" on your air conditioner.

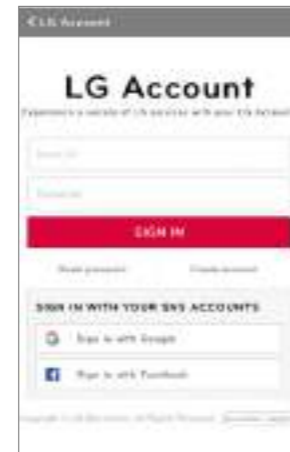


By using the embedded Wi-Fi modem, get ready for innovation without boundaries.



Easy Registration and Log-in

Follow the interactive set-up LG Account steps that will activate smart ThinQ's impressive features.



Wi-Fi Connectivity

Each individual member of your family can customise the air conditioner temperature and fan speed accordingly and then save the settings in their app to run it later. These settings can be saved for each air conditioner too.

Multiple Devices



Multi-Control



* Can be controlled by multiple users, but not simultaneously

• Benefit

Simple operation for various functions

On/Off, Current Temp



Mode, Set Temp



Vane Control



Straight forward Management



Reservation



Energy Monitoring



Smart Diagnosis



Filter Management



Integrated Home Appliances Control

Control / Monitor all your LG appliances from one place.



Access your air conditioner anytime and from anywhere

with a Wi-Fi equipped device and LG's exclusive control app, Smart ThinQ.



SMART



Smart Diagnosis

Smart Diagnosis allows you to check setup, installation, troubleshooting and other information conveniently from your smartphone.

* Specifications may vary for each model.
* When connected to Multi ODU, Smart Diagnosis function may not be supported.

• What is the Smart Diagnosis?

Smart Diagnosis allows users to conveniently check setup, installation, troubleshooting and other information directly from a smartphone.

* Builds upon widespread smartphone use and offers greater USP diversification
* Perfect for consumers who are unable to view information about their air conditioner via a display or remote control.

• How it works

By using "LG Smart ThinQ" App and clicking "Start Smart Diagnosis," monitor and check diagnosis results conveniently via Wi-Fi.



* When the model doesn't provide embedded Wi-Fi, diagnose by buzzer sound with the same app and remote controller.



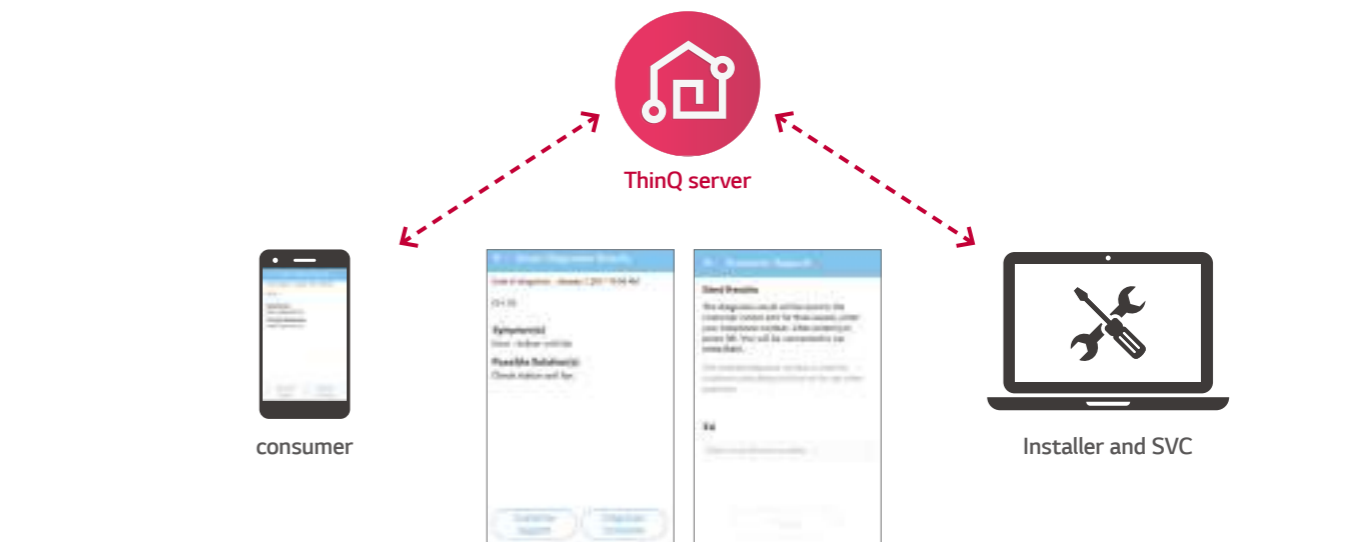
• Benefit

Easily comprehensible error messages make detecting a solution and contacting the service center simple and convenient

For consumer



For Installer and SVC



- Easily check operational status of a product without a display or one that provides limited information
- Save energy by monitoring key operational information and power consumption
- Using the Maintenance Guide helps to improve device performance and increase product life-span.

- Understand the product better by easily confirming operational status and information
- Intuitively diagnose problems by comparing current and past usage data
- Maintain installation capabilities and reduce installation errors by quickly confirming device operational status

SMART

SIMs

By connecting SIMs chip, you can check the status of your air conditioner and diagnose problems from your smartphone.

* Specifications may vary for each model.
* When connected to Multi ODU, SIMs function may not be supported.

• What is the LG SIMs?



Monitor the status of your air conditioner and accurately diagnose problems by connecting it to a smartphone via a SIMs chip.

* SIMs : Smart Inverter Monitoring System

• How It Works



SIMS App

1. Use a SIMs chip to connect a smartphone to an air conditioner.
2. Monitor and diagnose problems in real time using the SIMs app.

• Benefit

Easy Monitoring

Diagnose problems anytime, anywhere with a SIMs chip.

Easy Diagnosis & Quick Response

Easily monitor IDU/ODU and diagnose problems.
Save and review diagnostic data.

<p>Main Current outdoor temperature Indoor temperature Inverter Comp frequency Operating opening Error code / Frequency limits Indoor. Outdoor fan speed</p>	<p>Indoor Unit Indoor Unit Capacity / Operation Mode THM mode / REM mode FAN operating condition / EEV opening Room Temperature / Suction Temperature Intermediate Temperature Exit Temperature</p>
<p>Outdoor Unit Frequency / Fan RPM DC Link / Input Current Input Voltage EEV operation mode Restart timer Compressor mode / EEV opening</p>	<p>Chart Room Temperature Heat exchanger pipe temperature Compressor discharge temperature Frequency / Outdoor temperature Compressor suction temperature Electric current / Voltage</p>

Certificate



*Smartphone Requirements (iOS : 6.1 or later, Android : 2.3 or later)

Low Refrigerant Detection

Early notification of low refrigerant protects your air conditioner from a risk of damage.

* Specifications may vary for each model.
* Depending on the experimental conditions.
* When connected to Multi ODU, Low Refrigerant Detection function may not be supported.

• How It Works

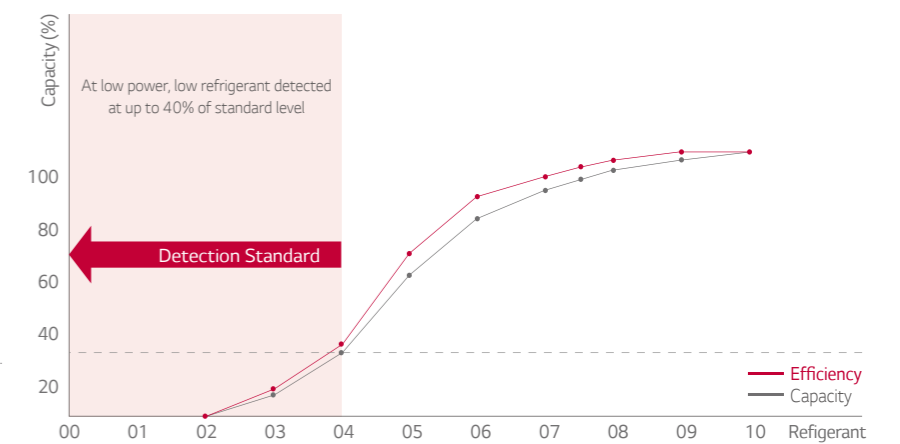
Early Detection of Low Refrigerant Levels
The Air Conditioner is automatically shut down when low refrigerant level is detected.

3 Checkpoints for Low Refrigerant Level :

- 1) The heat exchanger temperature is comparatively cool
- 2) The outdoor unit is working properly
- 3) The energy consumption is working under a standard pattern

If any of the above conditions are not met, for a maximum of 4 times, after 15 minutes of Air Conditioner operation, a Low Refrigerant level is detected and the Air Conditioner is shut down.

Capacity and Effectiveness of the Refrigerant Levels



* This function only works under the following conditions:
- Indoor/Outdoor temperature is up to 20 degrees Celsius
- Cooling and dehumidification mode

• Benefit

Longer Lifespan for Air Conditioner



Notify You of Low Refrigerant Levels

When Low Refrigerant Level is detected, it alternately shows CH and 36 on the display.

* Some models show CH and 38 alternately on the display.

ENERGY EFFICIENCY

Supreme Energy Efficiency

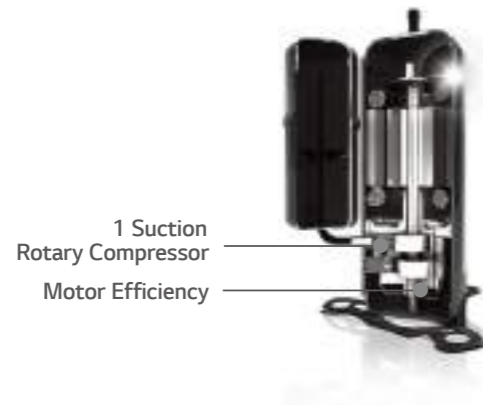
LG's revolutionary Inverter technology boasts powerful yet quiet performance while minimising energy consumption. With world class energy efficiency, bask in the cosiness of the atmosphere surroundings whilst saving energy.

* Based on H09AL Model
* Specifications may vary for each model.

High Efficient Compressor and Reversing Valve

Rotary Compressor and Motor Efficiency

The number of suction connections has been reduced from two to one to increase the efficiency of the refrigerant compression during low speed conditions. The DC motor in LG air conditioners remains unsurpassable incomparable to in the world's best efficiencies.



Bi-Stable Reversing Valve

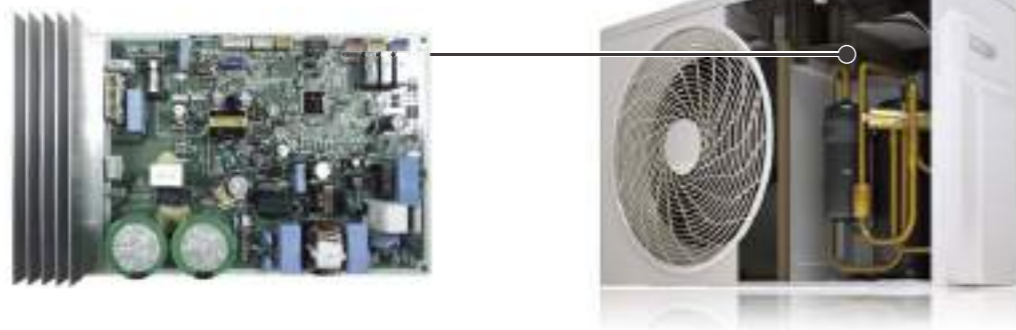
The Input power of 4-way valve has been reduced to 0W by using a Bi-Stable type.



Improved Inverter Drive Efficiency

Used to optimise the time of current flow by controlling the number of converter switching according to energy consumption status. Displays comparatively higher performance and advanced energy efficiency than conventional Inverter air conditioner by reducing power loss with an advanced material component called SiC.

SiC-Hybrid PSC Control



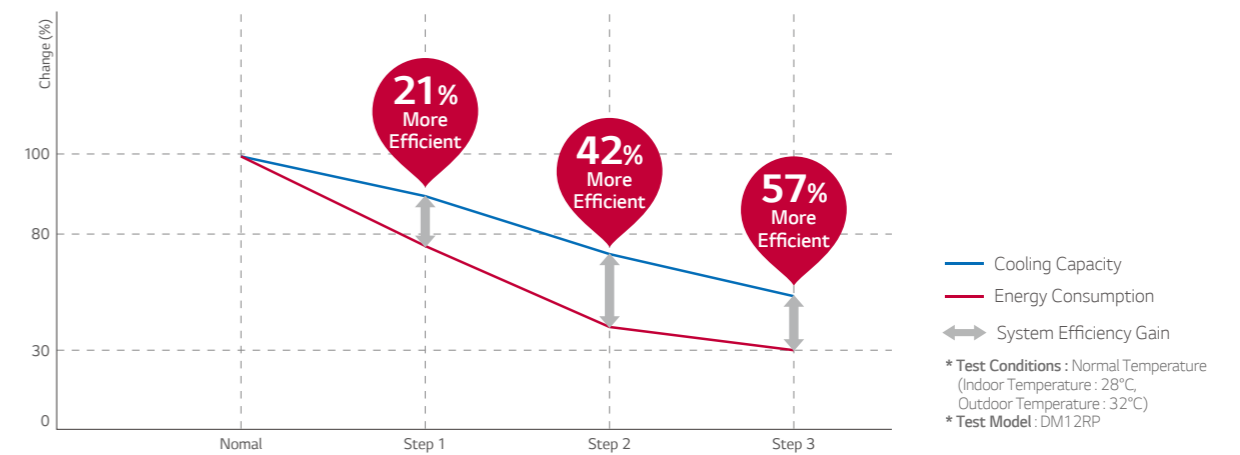
Active Energy Control 4 - Step

LG's Active Energy Control adjusts the energy consumption level and cooling capacity by controlling maximum frequency of the compressor motor.

* Specifications may vary for each model.
* Depending on the experimental conditions.
* When connected to Multi ODU, Active Energy Control function may not be supported.

Concept & Benefit

Cooling a home can come at a high cost particularly during the hot summer months. Avoid those costs and save energy by taking advantage of LG's 4-Step Energy Control System.



How It Works

<p>Normal. 100% energy usage</p> <p>Many people and high-activity level</p>	<p>Step 1. 80% energy usage</p> <p>Few people and moderate-activity levels.</p> <p>1 Clicks</p>
<p>Step 2. 60% energy usage</p> <p>Fewer people and low-activity levels.</p> <p>2 Clicks</p>	<p>Step 3. 40% energy usage</p> <p>Fewest people with no activity.</p> <p>3 Clicks</p>

ENERGY EFFICIENCY



Energy Display

LG's Energy Display panel monitors the amount of energy levels used. Save on energy consumption while enjoying the cooling by checking your energy level on the panel.

* Specifications may vary for each model.
* When connected to Multi ODU, Energy Display function may not be supported.

• How it Works

Magic Display & Remote Control

With the push of a button on the remote control, indoor unit's LCD display shows the current and total energy use, thus making the users aware of reducing energy consumption.



• Benefit

Nomal Mode

Current Setting Temp



Electric Power

Displays Current Energy Use



• Additional Benefit

Fan Speed

Display	Speed
F5	High
F4	Medium-High
F3	Medium
F2	Medium-Low
F1	Low

Sleep Mode



For example, setting 1hr

PERFECT HEALTHCARE



Plasmaster™ Ionizer^{PLUS}

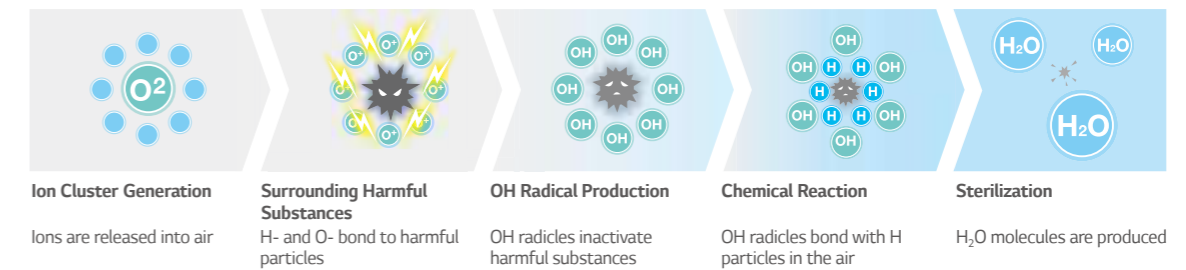
The powerful plasma ionizer protects you from bad odors and harmful and contagious particles in the air with over 3 million ions to sterilize not only the air passing through the air conditioner, but also surrounding surfaces for a safer, and cleaner environment.

* Specifications may vary for each model.
* Depending on the experimental conditions.

• How It Works

Sterilization and Deodorization (Utilizes Over 3 Million Ions)

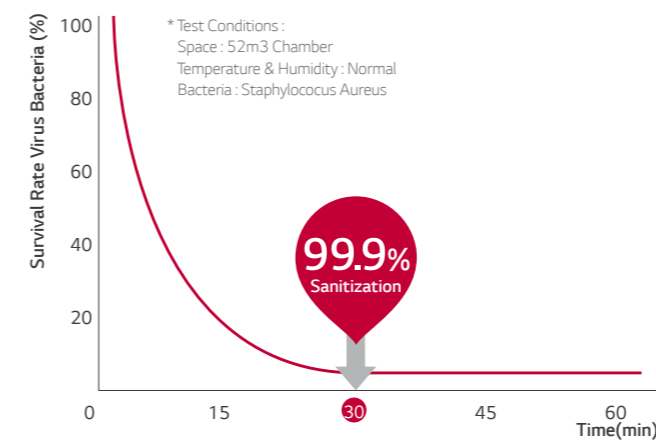
Plasmaster Ionizer+ reduces harmful and contagious microscopic particles by infusing the air passing through the air conditioner with over 3 million ions.



• Test Result

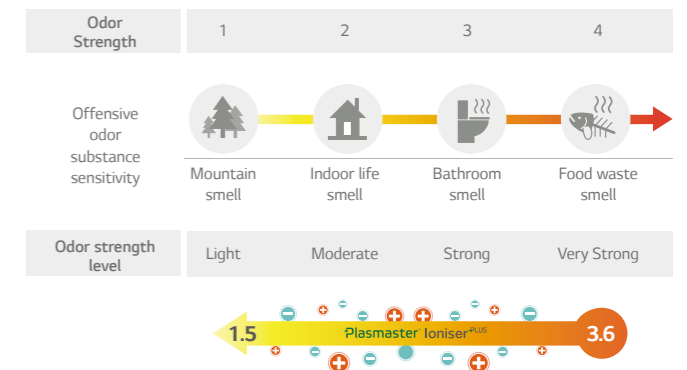
Sterilization Performance Evaluations

Sterilize Bacteria (E.coli colon bacillus) over 99.9% in 30 min.



2.1 odor strength decrease in 60 minutes

An odor of measured as 2 European odor units (ouE/m³) or less indicates that the level of odor falls within permissible limits.



Odor strength reduce 3.6 → 1.5 / The Odor floating in the room as well as curtain and clothes.

PERFECT HEALTHCARE

Dual Protection Filter

The Dual Protection Filter collects dust.

* Specifications may vary for each model.
* Depending on the experimental conditions.

• What is the Dual Protection Filter?

The Dual Protection Filter, designed to capture dust particles over 10µm in size, is the first line of defense and hindrance against finer particles.



• Additional Benefit

Easy to Open

Easily detachable full surface cover helps clean the air conditioner flawlessly.



Easy to Clean

The filter is designed for easy handling and quick cleaning, which lengthens its lifespan.



Auto Cleaning

The interior of the air conditioner is maintained clean by drying off the heat exchanger, then sterilizing the interior once more.

* Specifications may vary for each model.

• Pain Point

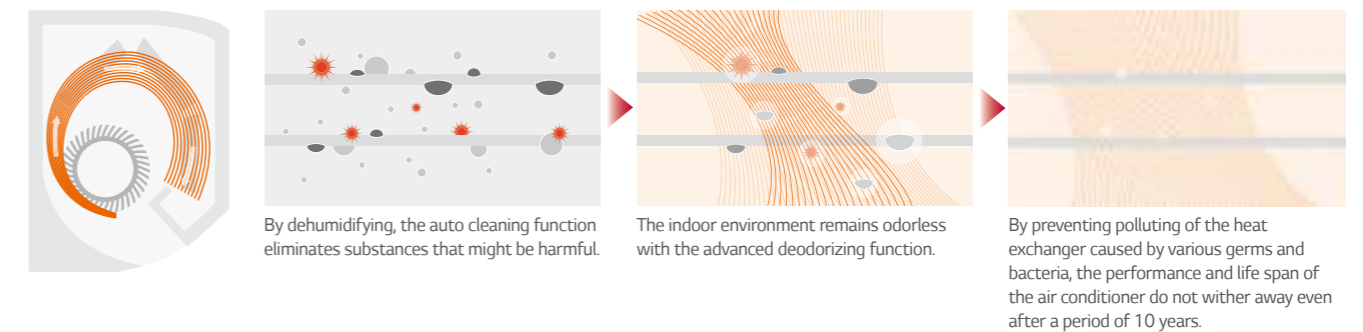
The main cause of odor within air conditioners is mold and bacteria growing on the heat exchanger. These germs can spread when the heat exchanger is wet.



• How It Works

Cleans Filter with Regular Airflow

The comprehensive auto cleaning function prevents the formation of bacteria and mold on the heat exchanger, providing an enhancing environment.



• Benefit

Removes Harmful Particles

Auto Cleaning provides clean air by preventing bacteria, mold and odors that can otherwise accumulate in an indoor unit.



FAST COOLING & HEATING

Fast Cooling

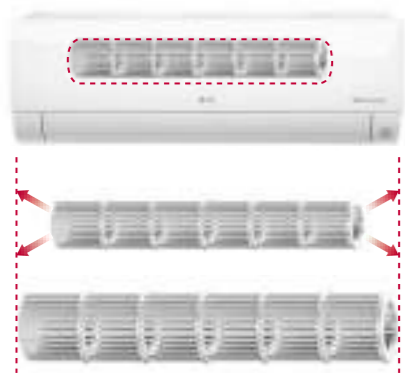
The cool airflow reaches all the corners of the room, keeping the space cool and comfortable.

* Specifications may vary for each model.
* Depending on the experimental conditions.

• How It Works

Bigger Skew Fan

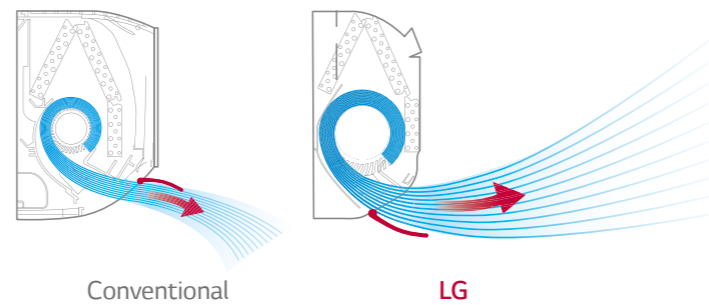
A 25% larger skew fan emanates highly powerful blasts of air.



25%
Larger
(Fan Size)

Cooling Outlet

A larger, optimally designed cooling outlet emanates to large areas and cools spaces faster.

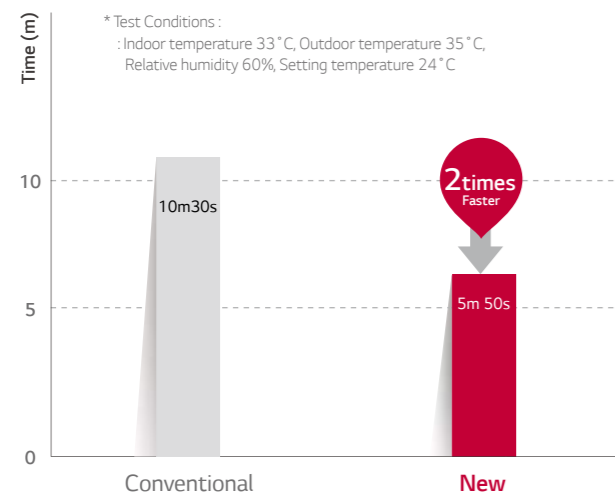


Conventional

LG

• Test Result

Test Result



Changes in Temperature Over 30 Minutes

	Conventional	10min	20min	30min
0.1m				
New				

* Test Conditions : Outdoor temperature : 35°C / Indoor temperature : 33°C / Humidity: 60% / Remote control: 24°C High

Jet Cool

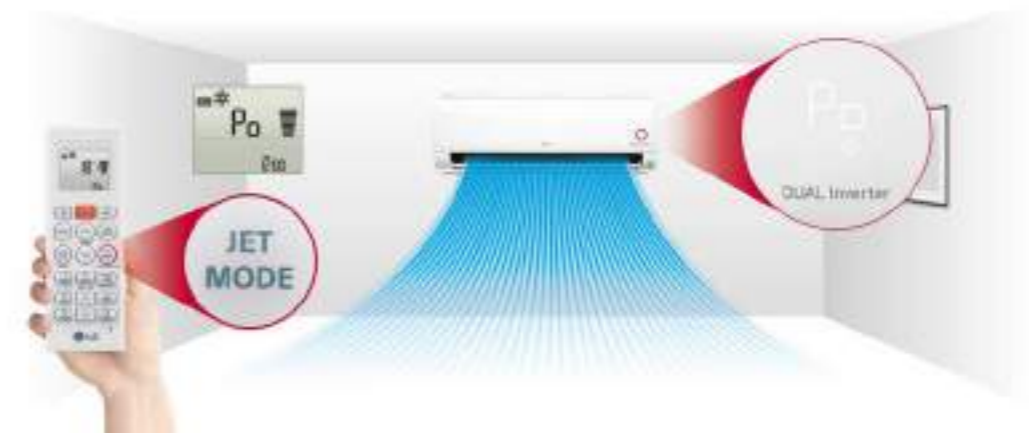
LG air conditioners provide optimized high-speed airflow, which can cool rooms faster while delivering cool air evenly in every direction.

* Specifications may vary for each model.
* Depending on the experimental conditions.

• How It Works

One Click "Jet Mode"

Reduces the temperature of outflowing air to 18°C for 30 minutes with just one click.



• More Powerful Performance

By reducing the second vortex, which decreases airflow within the air outlet, and enlarging the fan size, the amount of airflow is increased to 13.0 CMM.



Low Magnitude of Velocity High

FAST COOLING & HEATING

4-Way Swing

Cool air reaches out to the entire room regardless of where the air conditioner is installed

* Specifications may vary for each model.

• How It Works

6-Step Vane, Control up to 70°

The vertical vane, which moves up and down, has 6 different settings including full-auto swing.



* Angle can be different from each model and working mode.

5-Step Louver, Control up to 55°

The louver, which sways left and right, has 5 different settings including full auto-swing.



• Easy and Simple Control

Airflow direction can be changed by LG ThinQ Wi-Fi app.

Up/Down Swing



Left/Right Swing



Fast Heating

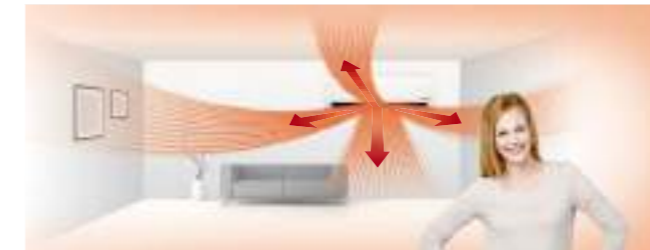
LG Residential Air Conditioners satisfy your heating needs while consuming less energy, by heating a wider space in a shorter period of time to create a warm and comfortable living environment.

* Specifications may vary for each model.
* Depending on the experimental conditions.

• How It Works

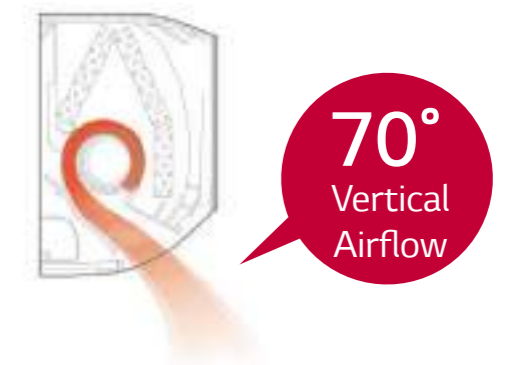
4 way Auto Swing (Easy Airflow Control)

4 Way Auto Swing adjusts airflow based on the surrounding environment, allowing for optimal distribution of warm air to living areas and enabling quick heating.



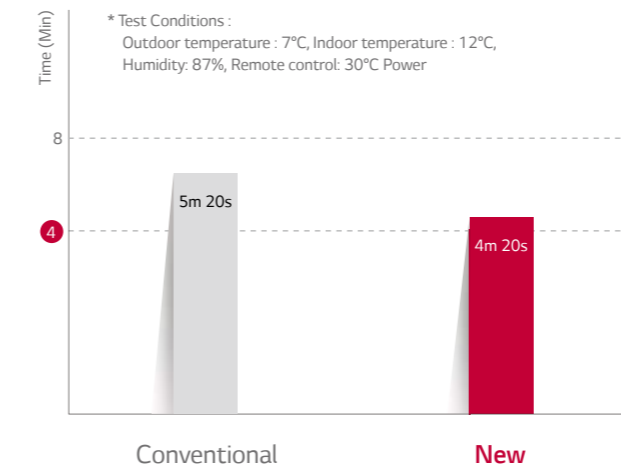
Vertical Airflow

When heating, the vane sends heated air downwards to maintain a pleasant and balanced room temperature.

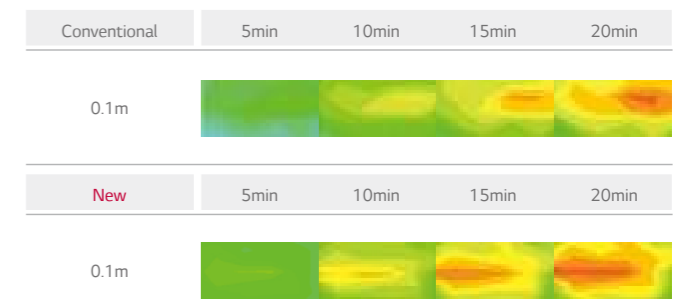


• Benefit & Test Result

22% Quick Heating



Changes in Temperature Over 20 Minutes



* Test Conditions : Outdoor temperature : 7°C / Indoor temperature : 12°C / Humidity : 87% / Remote control : 30°C Power

EXTREME DURABILITY



10-Year Inverter Compressor Warranty

LG, with confidence in product quality, preserves its better lives for customers by providing 10 years warranty for Inverter Compressor of Air conditioners.

* Specifications may vary for each model.

• What is the 10 Year Warranty?

The compressor is for the Air Conditioner what the engine is to the vehicle. With the 10 year warranty on the compressor, users can avail of the benefits of LG air conditioner for a longer period on time.



• Benefit & Verification

Reliable Air Conditioner

Product safety is emphasized by offering a 10-year warranty on the compressor to reassure customers about product durability.

Verification

TUV Rheinland, Long Term Accelerated-reliability Test & High Marginal Test

* Long Term Accelerated-Reliability test
 LG's unique testing method with reinforced operating condition for a product life assurance to test and determine the product life cycle in a short period of time by accelerating the life cycle.
 * High Marginal Test
 Test method to secure durability in various adverse conditions that may occur in the field by performing comp reliability test against higher pressure and temperature than the designed range of pressure and temperature which the comp operates in.
 * Verification obtained from TUV Rheinland for 10-year product life cycle



Gold Fin™

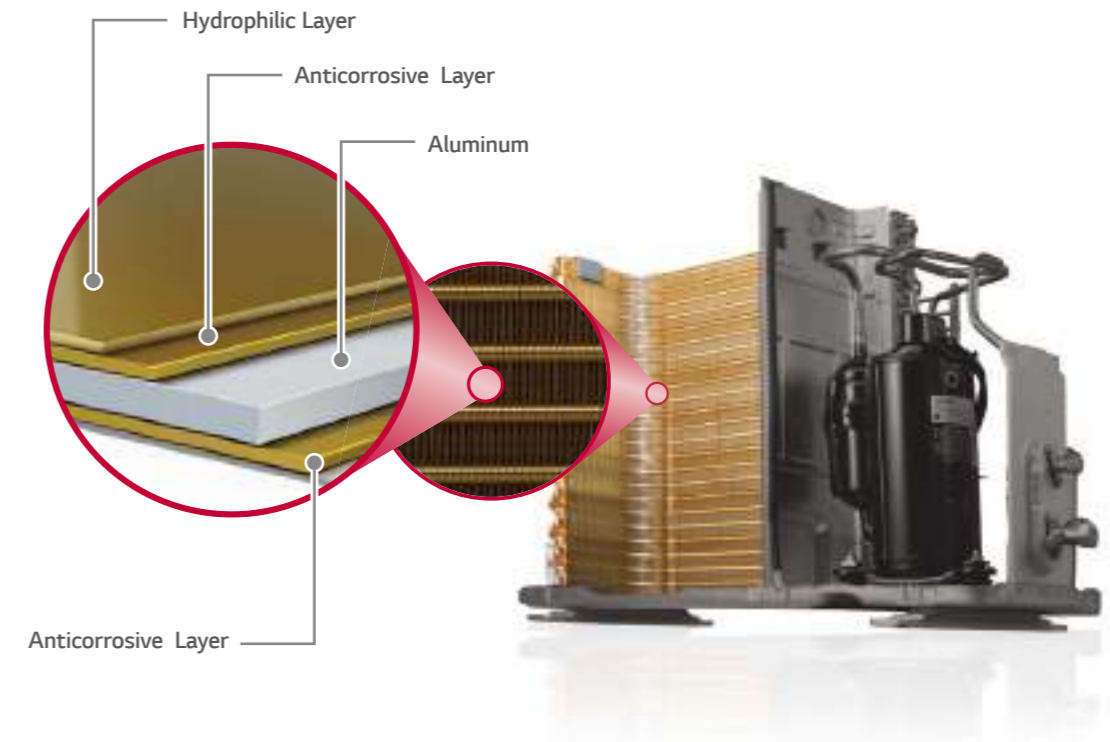
The Gold Fin™ coating protects the surface of the heat exchanger from unnecessary wear and corrosion.

* Specifications may vary for each model.
 * Depending on the experimental conditions.

• How It Works

Crosscut View of Heat Exchanger

The gold-colored special coating on the fin of the heat exchanger prevents corrosion, extending the life of the unit.



• Test Result

Conventional Fin



Gold Fin™



* Test result 360 hrs. after being exposed to sodium chloride

COMFORT



Comfort Air

LG provides pure hygienic and temperature regulated atmosphere surrounding your living space. An automatic vane angle adjustment sets perfect vane angle and air volume.

* Specifications may vary for each model.

• Concept

If the air conditioner remains ON while asleep, it can lower body temperature or cause discomfort, especially if the outflow of cool air is directly close to the room's occupants. This can be eliminated by the Comfort Air vane angle thus providing a comfortable environment to the sleeping occupants.

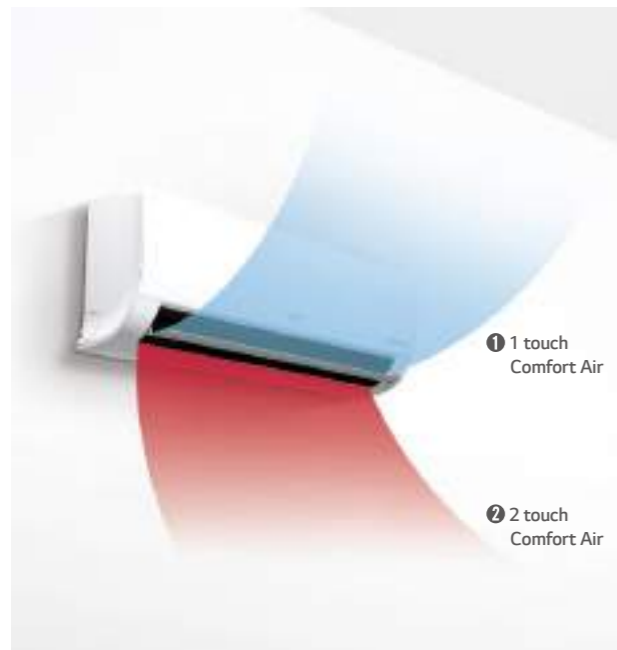
• How It Works

Control Panel



Comfort Vane

This option conveniently sets an AC's louvers to a preset position so that outflowing air is directed away from a room's occupants.

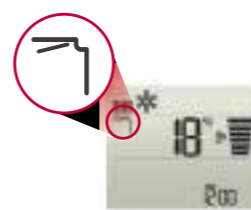


Scene 1: Inclines to a maximum 70° angle.
Sets vane angle to highest position : Optimized for gentle airflow cooling.

Indoor Unit Display



Remote Controller Display



Scene 2: Declines to a maximum 0° angle.
Sets vane angle to lowest position : Optimized for gentle airflow heating.

Indoor Unit Display



Remote Controller Display



Low Noise

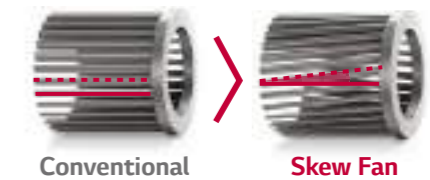
LG Air Conditioners operate at 19dB low noise level, moreover provide healthy soft air by just 1 touch.

* Specifications may vary for each model.

• How It Works

LG's Unique Skew Fan

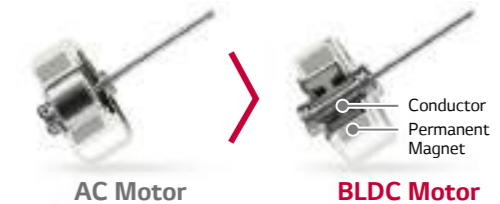
By minimizing the surface pressure of the fan blade when in contact with the air peak noise are reduced to a level that is among the lowest in the world.



15%
Tilted
Stabilizer

BLDC Fan Motor

With strong torque and powerful ND magnetism as well as precise speed control of 13 different steps for smooth operation, the BLDC motor provides substantial air volume and high static pressure, while keeping electrical and mechanical noise lower, and making high-speed operation available.



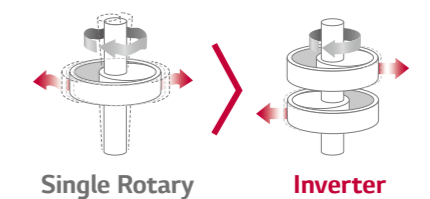
Advanced
Motor

AC Motor
- Low Efficiency.
- Heat Problem during overhauling.
- Difficult precise speed control.

BLDC Motor
- Low Electric and mechanical noise.
- Precise speed control durable.

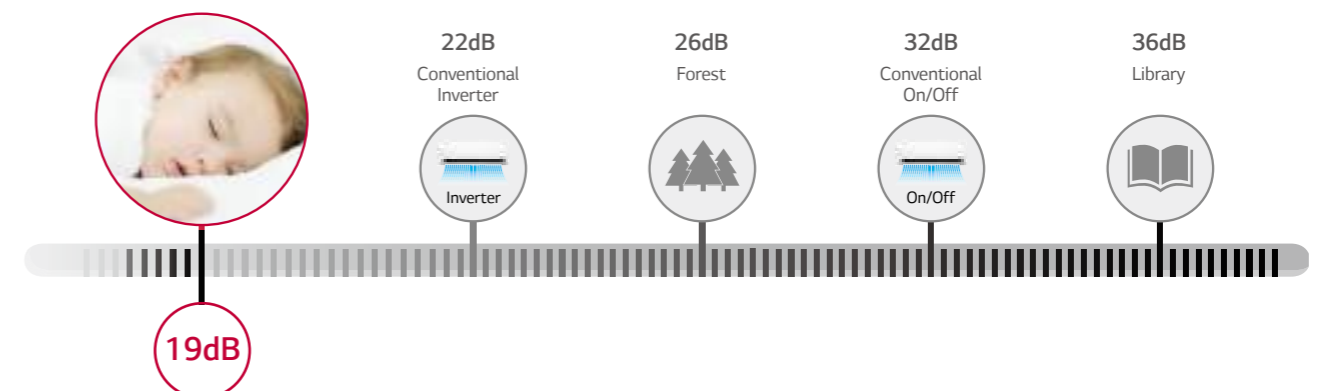
ALVC (Active Low Vibration Control)

A speed-error component estimates the load to compensate for imbalances, which are the primary causes of vibration and noise, enabling the rotation of the motor without vibration at low Hz levels.



40%
Cut Torque
Variation

• Benefit



COMFORT

Silent Mode

Silent mode ensures a tranquil and serene experience for the user by reducing noise disturbances while you are resting.

* Specifications may vary for each model.

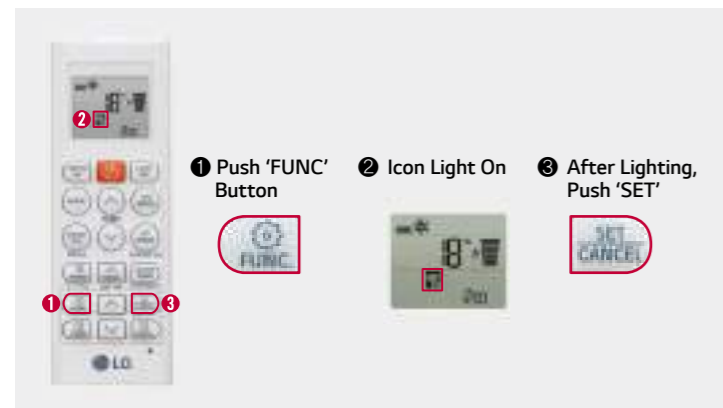
* Depending on the experimental conditions.

* When connected to Multi Outdoor unit, Silent Mode is working by simply setting the dip switch on the PCB of the outdoor unit.

• How It Works

In Silent Mode, the overall sound level of the outdoor unit drops by up to 3dB and the sound level of the indoor unit also decreases.

Press the Silent Button

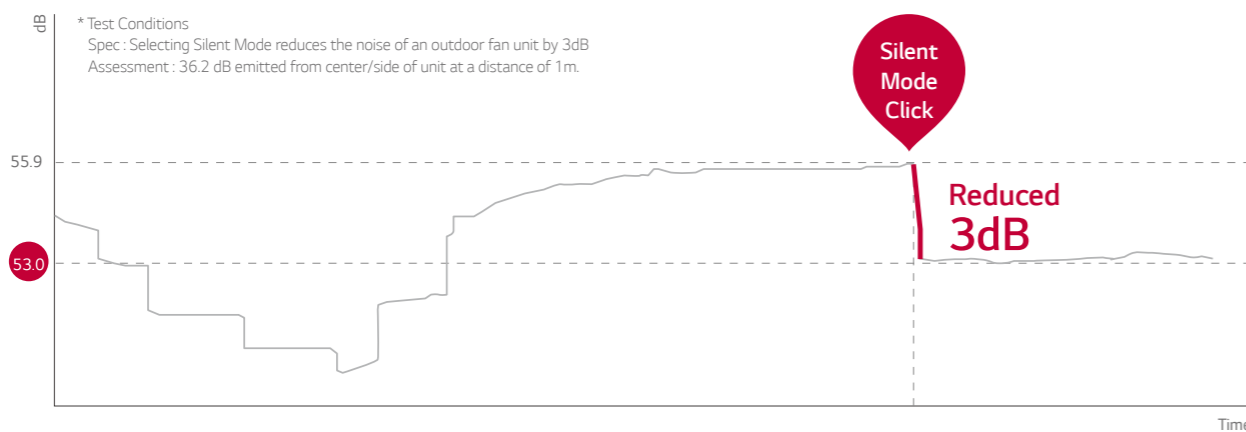


Controls the Outdoor Compressor



• Test Result

Noise Comparison Graph



Quick & Easy Installation

LG air conditioner is designed for an easy and efficient installation, making possible to install several units in a short period of time

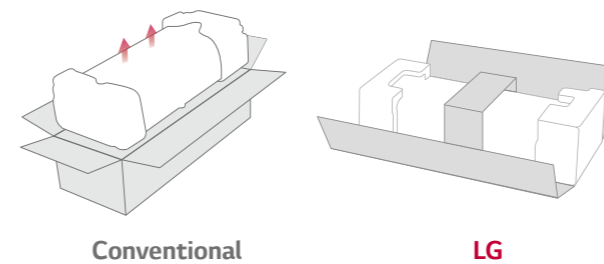
* Specifications may vary for each model.

• Concept

By reducing the manpower and time required for installation, it is now possible to install more units in less time.

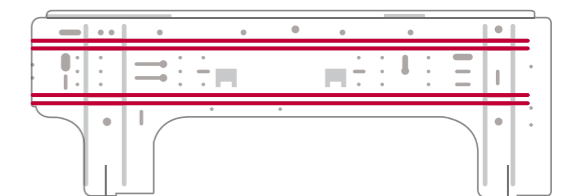
• How It Works

One Simple Packing Box



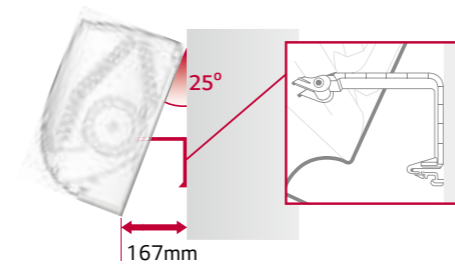
Installation Plate Improvement

LG's installation plate is larger and customized to reduce installation time.



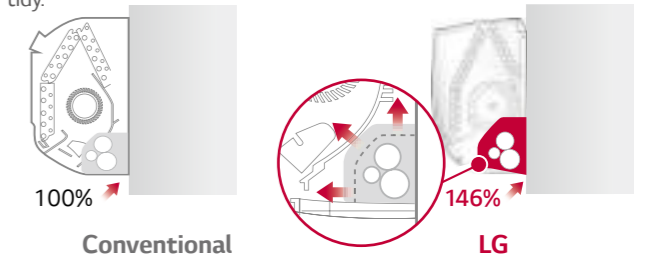
Installation Support Clip

A support clip creates adequate space between the wall and the unit for easier installation.



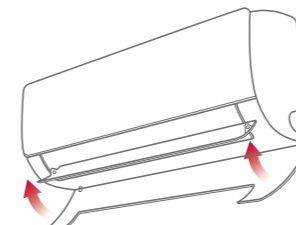
Wider Tubing Space

The space provided for tubing facilitates the whole installation process and hides the unorganized parts, making it appear clean and tidy.



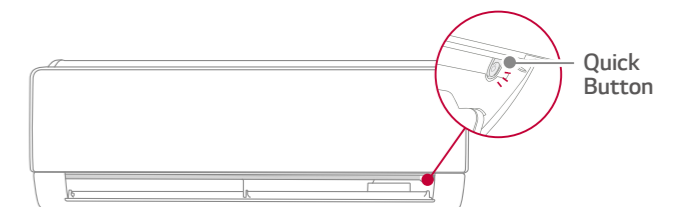
Detachable Bottom Cover

The air conditioner's bottom cover is detachable for easier installation and access.



Quick button for running test

The test button is conveniently located and easy to find.



COMMERCIAL

SINGLE SPLIT



SINGLE SPLIT

R32 LINE-UP



STANDARD INVERTER (R32)								
kBTu/h	Type kW	Ceiling Mounted Cassette	Ceiling Concealed Duct		Ceiling & Floor / Ceiling Suspended	Console / Wall Mounted / Floor Standing	ODU	
			Mid / High Static	Low Static			1Φ	3Φ
9	2.5	CT09R NR0		CL09R N20			UU09WR UL0	
12	3.5	CT12R NR0		CL12R N20			UU12WR UL0	
18	5.0	CT18R NQ0	CM18R N10	CL18R N20	UV18R N10		UU18WR U20	
24	7.1	CT24R NP0	CM24R N10	CL24R N30	UV24R N10		UU24WR U40	
30	8.0	UT30R NP0	UM30R N10		UV30R N10		UU30WR U40	
36	10.0	UT36R NM0	UM36R N20		UV36R N20		UU36WR U30	UU37WR U30
42	12.5	UT42R NM0	UM42R N20		UV42R N20		UU42WR U30	UU43WR U30
48	14.0	UT48R NM0	UM48R N30		UV48R N20		UU48WR U30	UU49WR U30
60	15.0	UT60R NM0	UM60R N30		UV60R N20		UU60WR U30	UU61WR U30
70	20.0							
85	25.0							

COMPACT INVERTER (R32)								
kBTu/h	Type kW	Ceiling Mounted Cassette	Ceiling Concealed Duct		Ceiling & Floor / Ceiling Suspended	Console / Wall Mounted / Floor Standing	ODU	
			Mid / High Static	Low Static			1Φ	3Φ
18	5.0		CM18R N10				UU18WCR UL0	
24	7.1		CM24R N10				UU24WCR U20	
30	8.0		UM30R N10				UU30WCR U40	
36	10.0		UM36R N20				UU36WCR U40	

SINGLE SPLIT

R410A LINE-UP

STANDARD INVERTER (R410A)								
kBTu/h	Type kW	Ceiling Mounted Cassette	Ceiling Concealed Duct		Ceiling & Floor / Ceiling Suspended	Console / Wall Mounted / Floor Standing	ODU	
			Mid / High Static	Low Static			1Φ	3Φ
9	2.5	CT09 NR2		CB09L N22	CV09 NE2	CQ09 NA0	UU09W UL0	
12	3.5	CT12 NR2		CB12L N22	CV12 NE2	CQ12 NA0	UU12W UL0	
18	5.0	CT18 NQ2	CM18 N14	CB18L N22		CQ18 NA0	UU18W UE4	
24	7.1	CT24 NP2	CM24 N14	CB24L N32			UU24W U44	
30	8.0	UT30 NP4	UM30 N14			UJ30 NV2	UU30W U44	
36	10.0	UT36 NN2	UM36 N24			UJ36 NV3	UU36W U02	UU37W U02
42	12.5	UT42 NM2	UM42 N24				UU42W U32	UU43W U32
48	14.0	UT48 NM2	UM48 N34			UP48 NT2	UU48W U32	UU49W U32
60	15.0	UT60 NM2	UM60 N34				UU60W U32	UU61W U32
70	20.0		UB70 N94					UU70W U34
85	25.0		UB85 N94					UU85W U74

COMPACT INVERTER (R410A)								
kBTu/h	Type kW	Ceiling Mounted Cassette	Ceiling Concealed Duct		Ceiling & Floor / Ceiling Suspended	Console / Wall Mounted / Floor Standing	ODU	
			Mid / High Static	Low Static			1Φ	3Φ
18	5.0		UB18C NH0				UU18WC UL0	
24	7.1		UB24C NH0				UU24WC UE0	
30	8.0		UM30 N14				UU30WC UE0	
36	10.0		UM36 N24				UU36WC U40	

COMMERCIAL

SINGLE SPLIT



FEATURE OVERVIEW

Category		STANDARD INVERTER (R32)									STANDARD INVERTER (R410A)								
kBTu/h		9	12	18	24	30	36	42	48	60	9	12	18	24	30	36	42	48	60
kW		2.5	3.5	5.0	7.1	8.0	10.0	12.5	14.0	15.0	2.5	3.5	5.0	7.1	8.0	10.0	12.5	14.0	15.0
Energy Efficiency	New Type Scroll Compressor						•	•	•	•									
	BLDC Comp. & Fan Motor	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Eurovent Certi.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Variable Voltage Control			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Wide Louver Fin			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Optimised Heat Exchanger Path			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Power Saving Start up			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Quick Operation Response			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Peak Current Control			•	•	•							•	•	•				
	Mode Lock	•**	•**	•	•	•	•	•	•	•	•**	•**	•	•	•	•	•**	•**	•**
Standby Mode			•	•	•							•	•	•					
Durability	Ocean black fin heat exchanger	•	•	•	•	•	•	•	•	•									
Fast Cooling & Heating	Forced Cooling Operation			•	•	•	•	•	•	•			•	•	•	•	•	•	•
Comfort	Night Silent Operation			•	•	•	•	•	•	•			•	•	•	•	•	•	•
Smart	Outdoor Dry Contact						•	•	•	•						•	•	•	•
	LG MV	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Weekly Program*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PI-485 Connection			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	Wi-Fi Ready	•	•	•	•	•	•	•	•	•									
AHU Solution	Return Air Control			•	•	•	•	•	•	•			•	•	•	•	•	•	•
	0-10V Supply Air Control												•	•	•				

* Weekly program is available with wired remote controller
 ** With controller PREMTB001 / PREMTB01 / PREMTB100 / PREMTB10

Category		COMPACT (R32)				COMPACT (R410A)				STANDARD INVERTER (R410A)		
kBTu/h		18	24	30	36	18	24	30	36	70	85	
kW		5.0	7.1	8.0	10.0	5.0	7.1	8.0	10.0	20.0	25.0	
Energy Efficiency	New Type Scroll Compressor											
	BLDC Comp. & Fan Motor	•	•	•	•	•	•	•	•	•	•	
	Eurovent Certi.	•	•	•	•	•	•	•	•	•	•	
	Variable Voltage Control										•	•
	Wide Louver Fin	•	•		•	•	•		•	•	•	•
	Optimised Heat Exchanger Path	•	•	•	•	•	•	•	•	•	•	•
	Power Saving Start up	•	•	•	•	•	•	•	•	•	•	•
	Quick Operation Response	•	•	•	•	•	•	•	•	•	•	•
	Peak Current Control										•	•
	Mode Lock	•	•	•	•	•	•	•	•	•	•	•
Standby Mode	•	•	•	•	•	•	•	•	•	•	•	
Durability	Ocean black fin heat exchanger											
Fast Cooling & Heating	Forced Cooling Operation									•	•	
Comfort	Night Silent Operation									•	•	
Smart	Outdoor Dry Contact									•	•	
	LG MV	•	•	•	•	•	•	•	•	•	•	
	Weekly Program*	•**	•**	•	•	•**	•**	•	•	•	•	
	PI-485 Connection									•	•	
	Wi-Fi Ready	•	•	•	•							
AHU Solution	Return Air Control	•	•	•	•	•	•	•	•	•	•	
	0-10V Supply Air Control									•	•	

* Weekly program is available with wired remote controller
 ** With controller PREMTB001 / PREMTB01

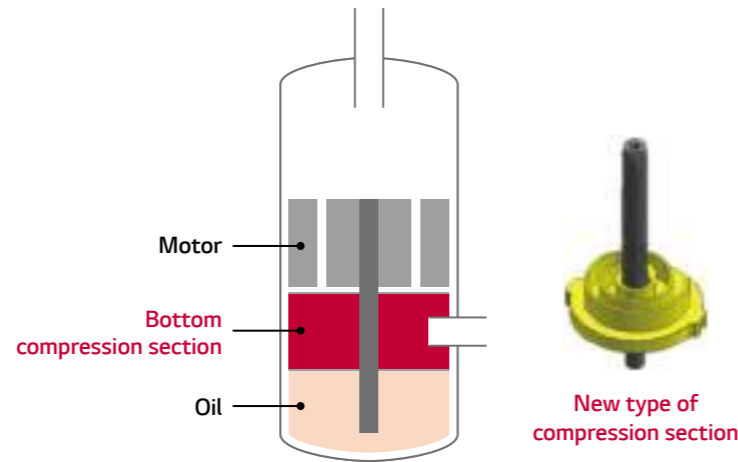
ENERGY EFFICIENCY

New Type Scroll Compressor

(UU36WR, UU37WR, UU42WR, UU43WR, UU48WR, UU49WR, UU60WR, UU61WR)

Scroll + Rotary compressor

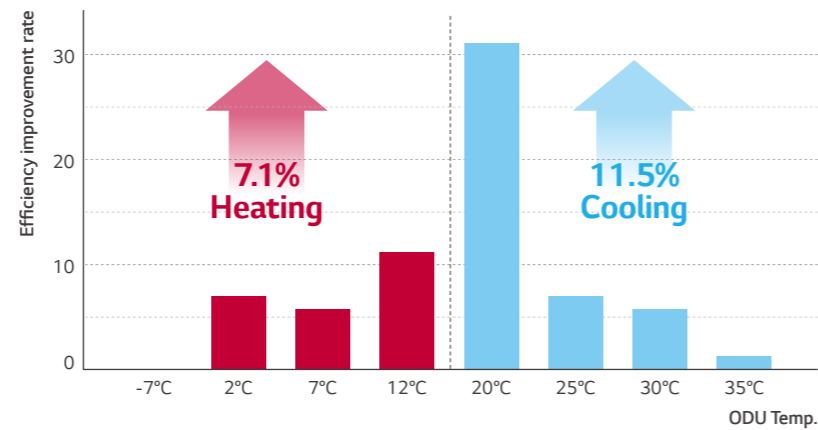
- Scroll compression + Rotary structure
- High efficiency (seasonal efficiency improvement)
- Low noise (high speed possible)
- Wide operating range (15~150Hz)



Seasonal energy efficiency

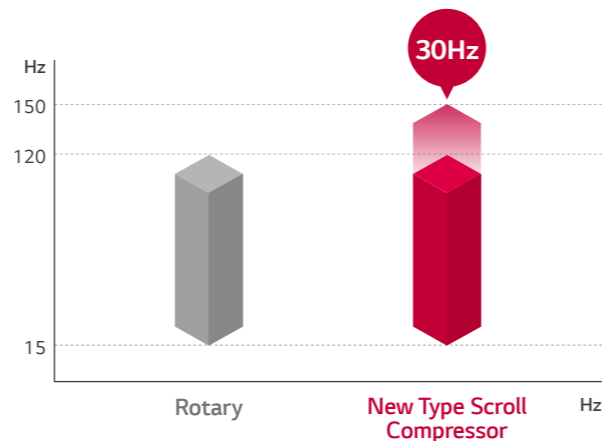
SEER 11.5%, SCOP 7.1% improvement (vs. rotary)

• LG Internal test result, Based on single split 1.2 kW



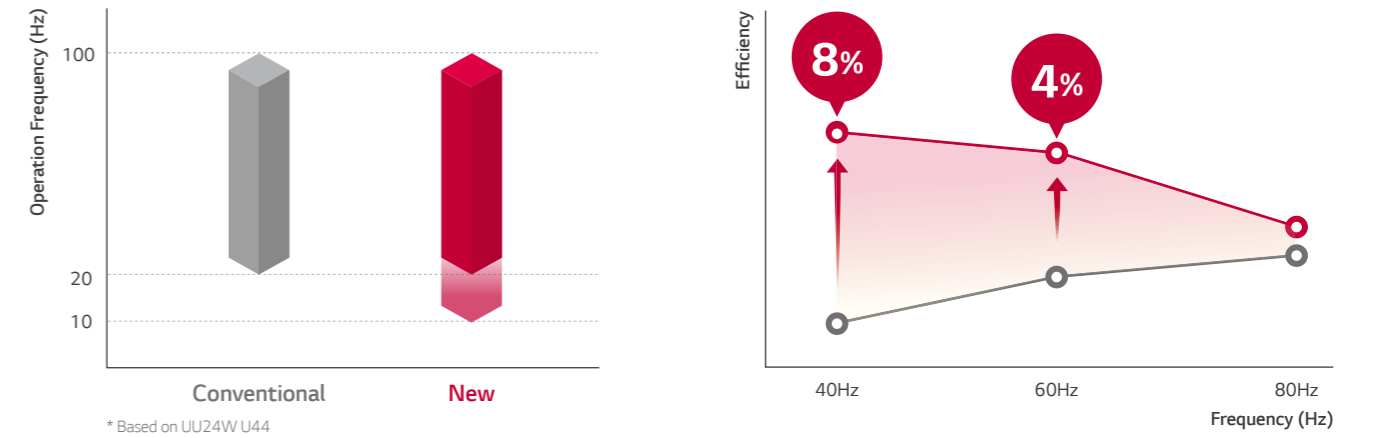
Wide Operation Range

- Optimized for various cooling & heat load operation
- World best compressor speed (up to 150 Hz)
- Optimized for even low load operation (down to 15 Hz)
(Efficiency increases / Improved comfort)



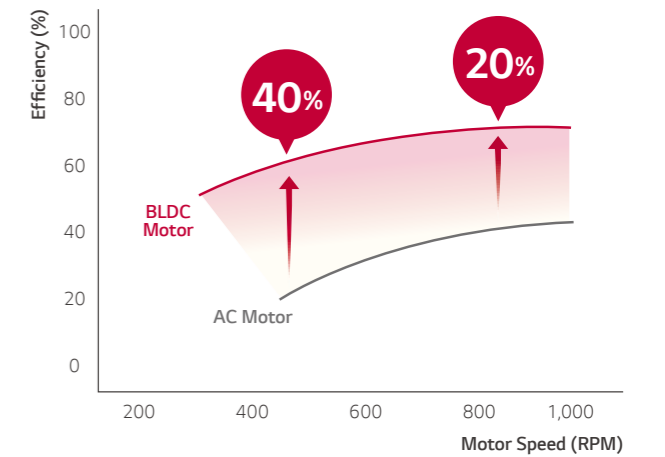
BLDC (Brushless Direct Current Motor) Compressor

LG air conditioners are equipped with a BLDC compressor that uses a strong neodymium magnet. The compressor has improved efficiency compared to standard AC inverter products and it is optimized for seasonal efficiency.



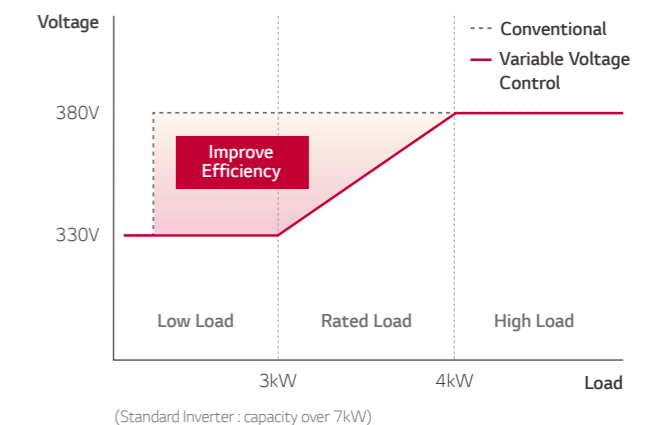
BLDC Fan Motor

The BLDC Fan motor is more efficient than a conventional AC motor, offering an additional 40% energy savings at low speeds and 20% at high speeds.



Variable Voltage Control

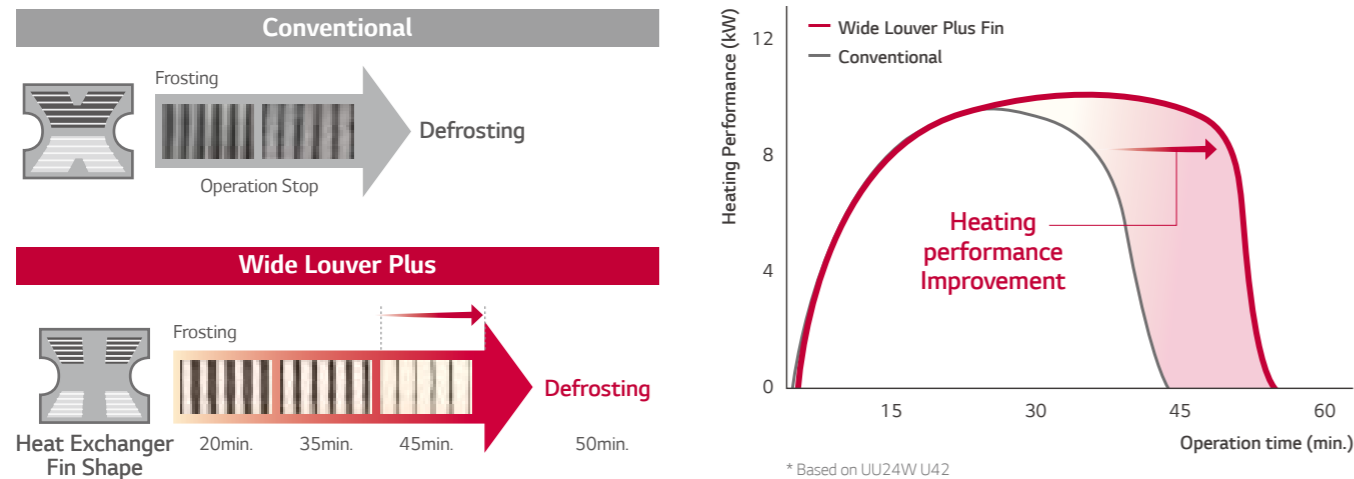
The compressor of Standard Inverter improves efficiency by adjusting the compressor input voltage depending upon the compressor input load.



ENERGY EFFICIENCY

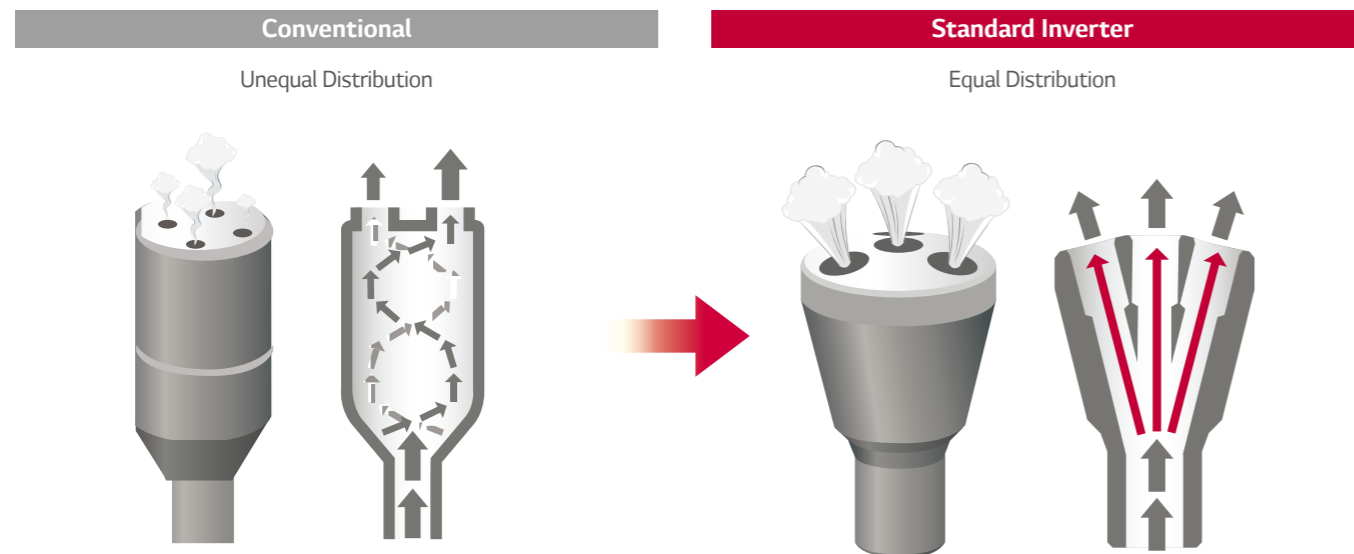
Wide Louver Plus Fin

Wide Louver Plus fin technology increases 11% of full load heating performance and 6% of COP compared to conventional fin. It can minimize frosting of the heat exchanger and delay the start of defrosting operation.



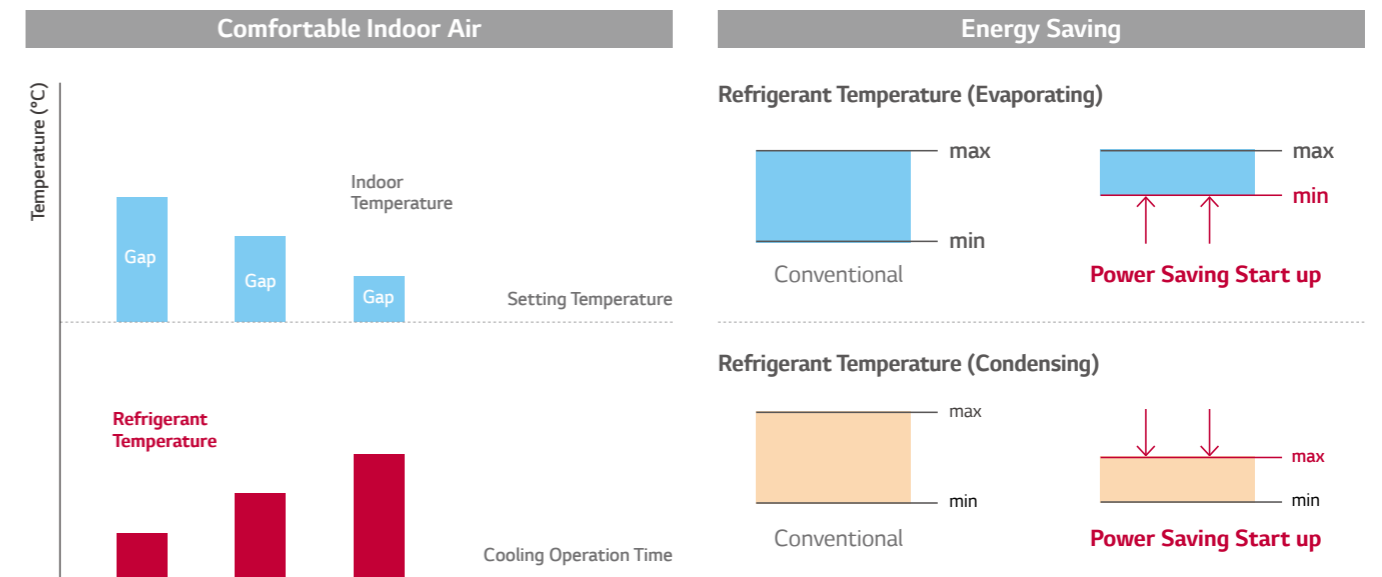
Optimised Heat Exchanger Path

Optimized heat exchanger path improves cycle efficiency up to 5%.

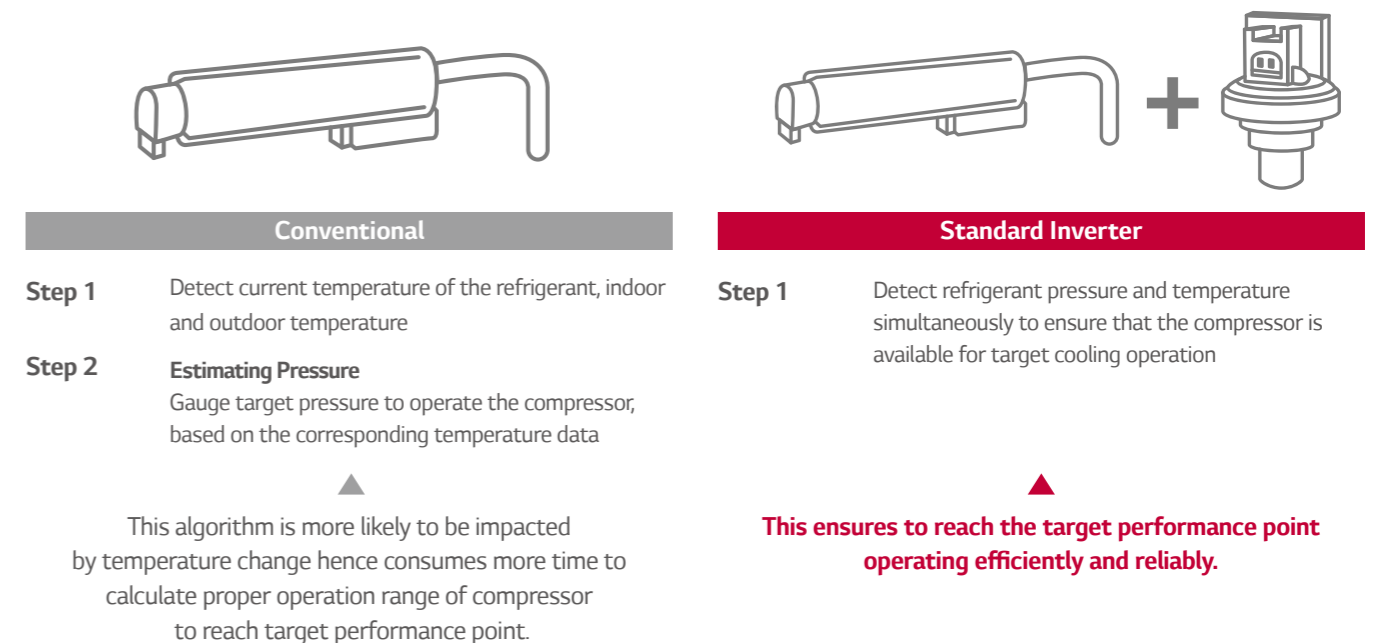


Power Saving Start Up

LG commercial air conditioners will automatically alter the temperature of discharge air by controlling their refrigerant temperature based on the difference between the indoor temperature and the target indoor temperature. During cooling operation, evaporating temperature will increase if the temperature difference reduces. This leads to extremely comfortable indoor air whilst minimizing energy consumption.



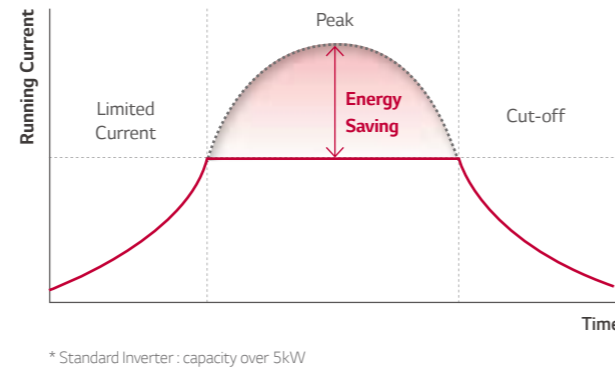
Quick Operating Response



ENERGY EFFICIENCY

Peak Current Control

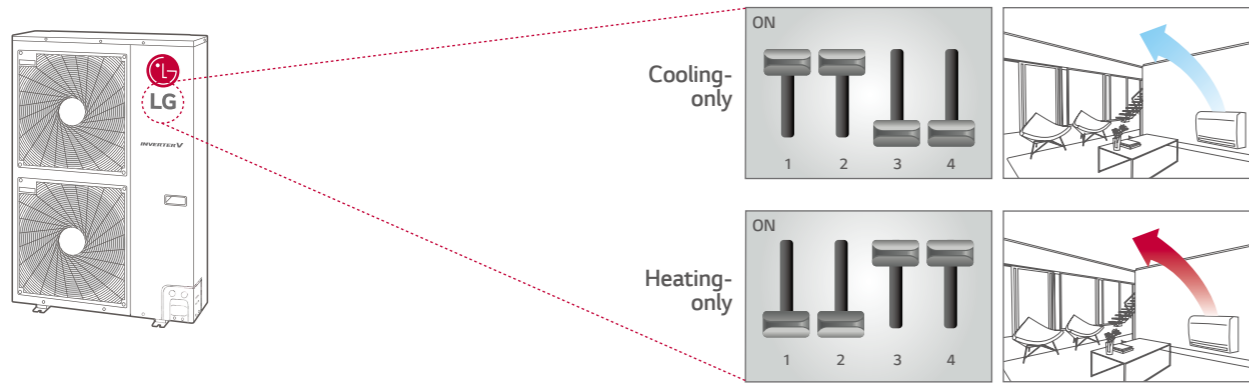
The peak current control function prevents the air conditioner from running at the maximum level while maintaining current system settings, in order to reduce energy consumption. This function helps minimize energy costs during the peak periods of energy use when the energy billing is much higher.



* Standard Inverter : capacity over 5kW

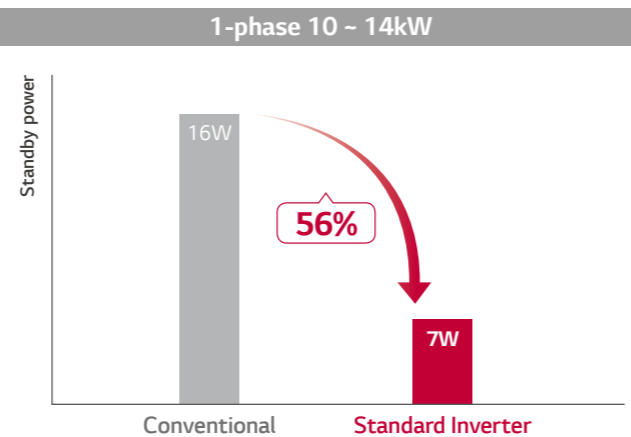
Mode Lock

Set the operation mode to either cooling-only or heating-only; either by adjusting the wired remote controller or setting the DIP switch to avoid combined use of cooling and heating. (Some models need wired remote controller for mode lock function according to feature overview table)



Standby Mode

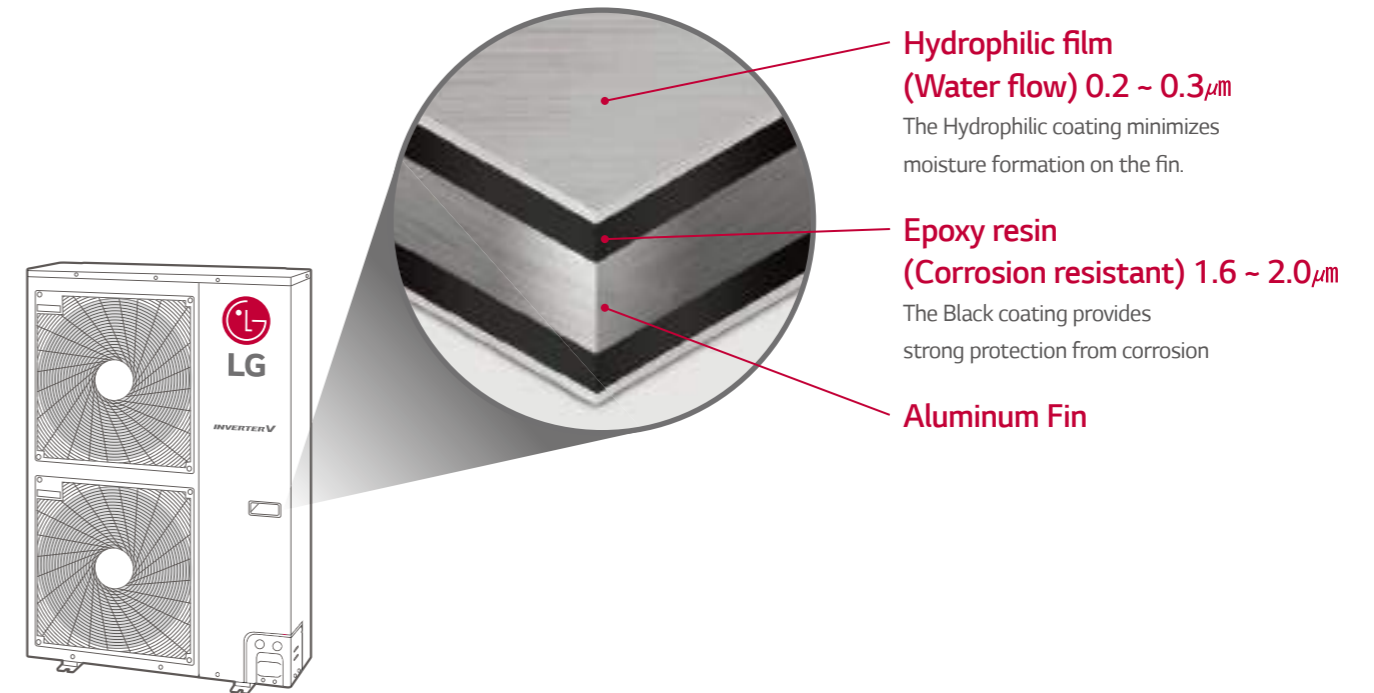
Standard Inverter can minimise power consumption by turning power off on the PCB except for the MICOM which receives signals.



DURABILITY

Ocean Black Fin

LG's exclusive "Ocean Black Fin" heat exchanger is designed for Improved corrosion resistance.



• Certified protection



- Test Method B of ISO21207, 6.2 & Annex A
- Test condition: Salt contaminated condition + severe industrial/traffic environment(NO_2/SO_2)

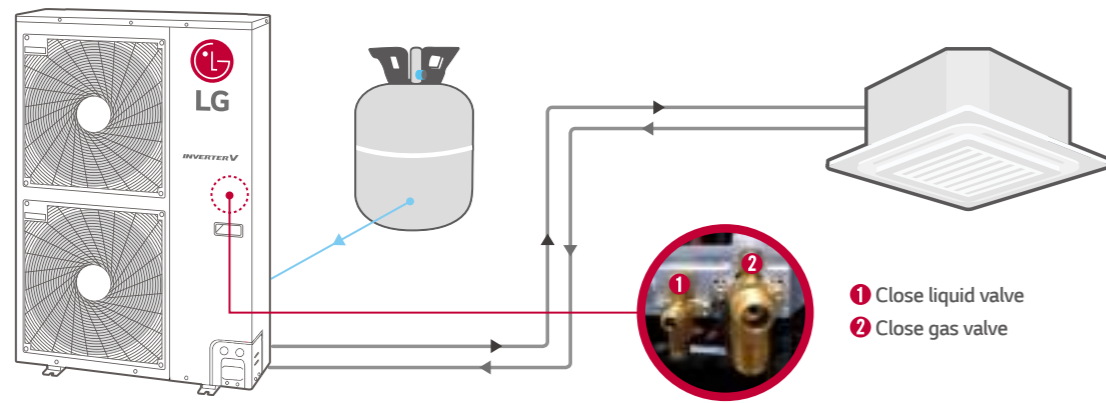
* Based on 1,500 UL test hours

FAST COOLING & HEATING

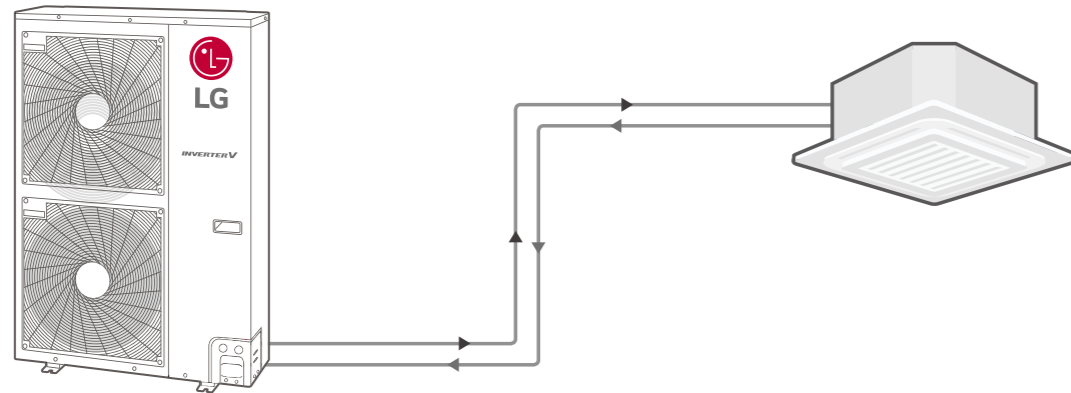
Forced Cooling Operation

This function allows the refrigerant to be recharged or pumped down, regardless of the indoor temperature. Note that this function can be used when indoor units are being moved or repaired.

Recharging



Pump Down

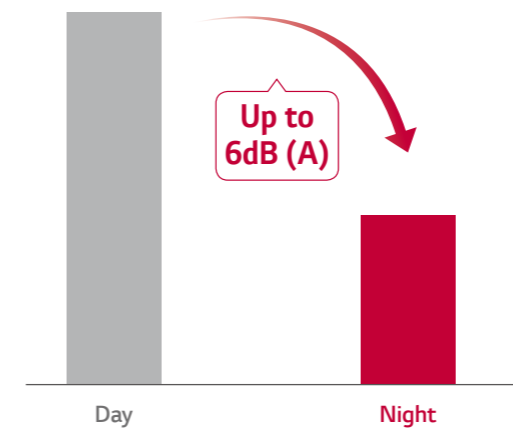
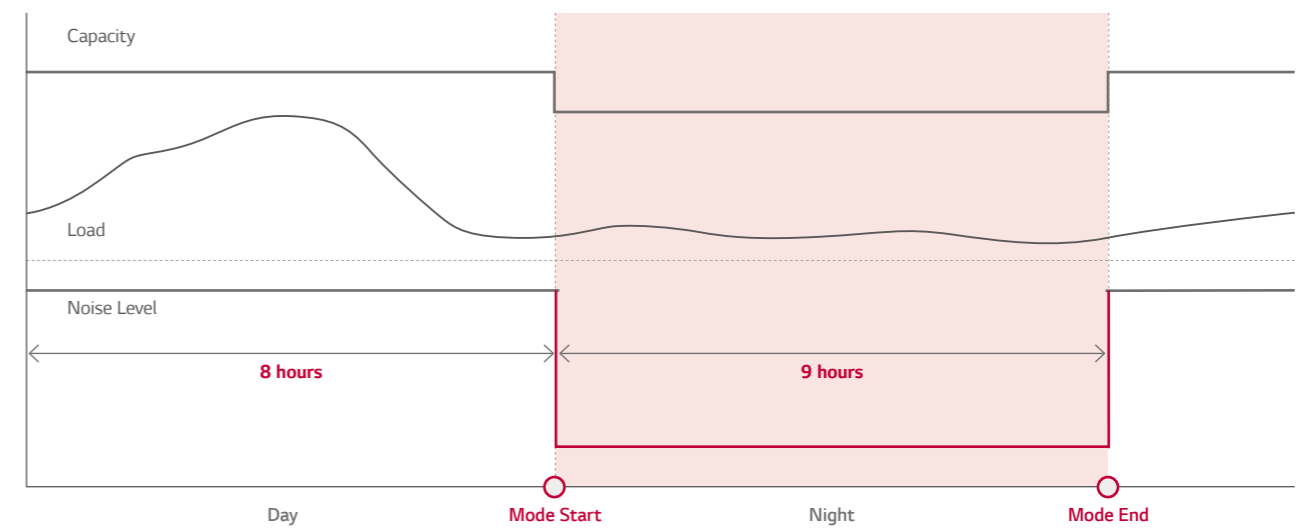


COMFORT

Night Silent Operation

This function enables noise reduction during night time by simply setting the dip switch on the PCB of the outdoor unit.

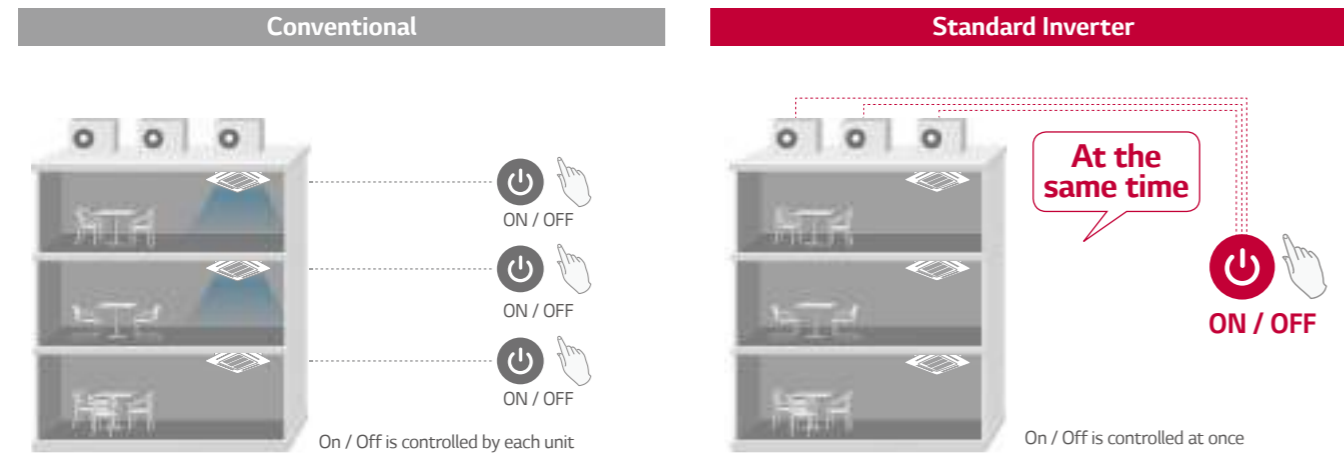
Cooling Mode



SMART

Outdoor Dry Contact

Air conditioners can be turned ON/OFF at the same time using the ON/OFF dry contact function that outdoor units have. (Models capacity over 10 kW).



LG MV (Monitoring View)

LG MV helps engineers to inspect and monitor air conditioning units conveniently. Instructions are provided with the product type. (SINGLE Split & MULTI Split)



LG MV displays cycle info represented by diagrams. It assists the user to check for data that is concentrated on a graph. A technician can easily obtain info about the error status by looking up the Error Indicator table. (Troubleshooting guide)

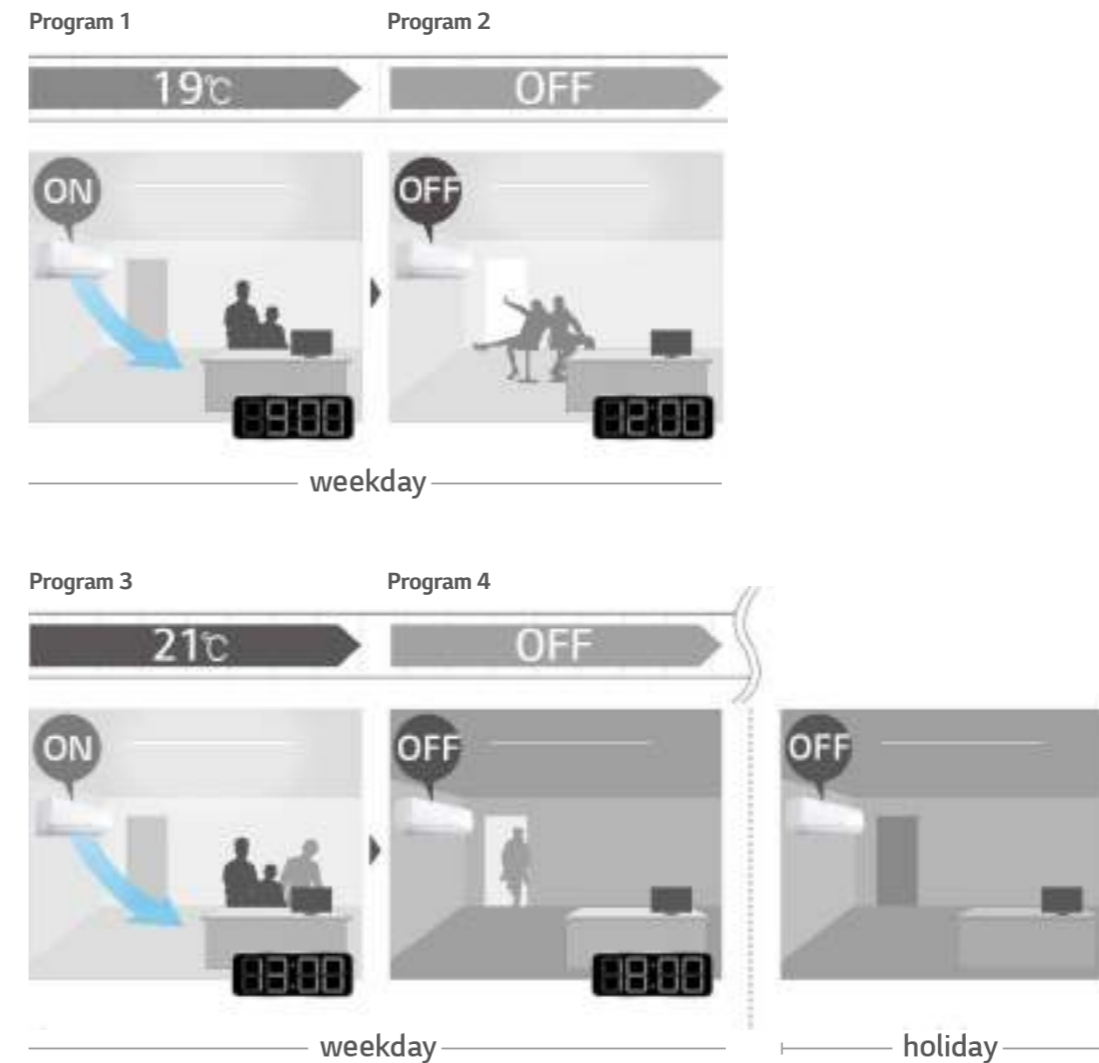
• Error Indicator

Error Code	Contents
01	Air temperature sensor of indoor unit
02	Inlet pipe temperature sensor of indoor unit
03	Communication error : Wired Remote Controller ↔ Indoor Unit

⋮

Weekly Program

You can allot 2 reservations for one day, and up to 14 reservations for a week.

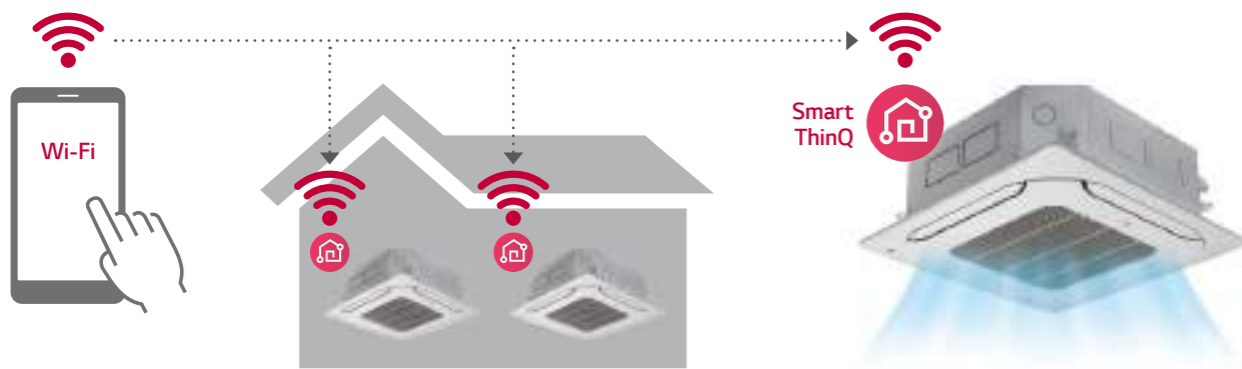


SMART

Wi-fi

Control your air conditioners via using the smart internet devices as Android or iOS based smartphones. Wi-Fi modem (PWFMD200) is required by option.

• Access your air conditioner anytime and from anywhere



• Simple operation for various functions

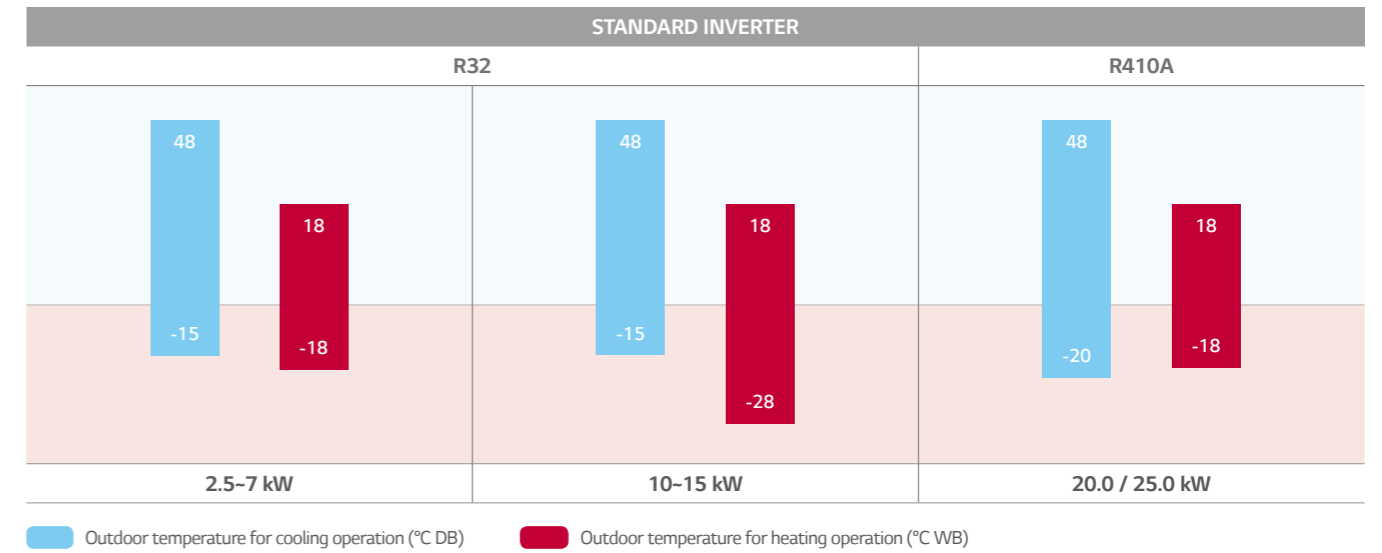
- ON/OFF
- Mode Selection
- Current temperature
- Set temperature
- Vane Control
- Reservation
- Energy Monitoring
- Filter Management

※ Search "LG Smart ThinQ" on Google market or Appstore then download the app.



PERFORMANCE

Wide Operation Range



Stable Operation

High and stable cooling performance at low temperatures.

